

# Egg Drop

Project 🍎 200 points  
Physical Science

## Description

Using your knowledge of force, motion, work, power, & energy, your team will crash test a car of your own design. Each team will use the scientific method to design a safe car that will protect an egg passenger from a crash.

## Procedure

1 At school - Decide whether you want to work alone or with a partner of your choice. You should look at the rubric before making this decision. Behavior is a part of the overall grade. That means your partner will affect your score.

2. At home - Find a cardboard box that will fit on an 8 ½ by 11 inch sheet of paper & decorate it to resemble a car. Be creative! Choose what material(s) to use inside your car to protect the egg. Run several trials at home from different heights.

Remember:

- You must be able to check the egg after each trial during the crash test.
- The crash test trials are over metal and then concrete (not grass!).

3. Crash test day - Bring your box-car & your un-boiled egg passenger to school. Have both partners' names on the car. We will crash test the cars off the visitor bleachers to see which team came up with the best design. Good luck!

Any project that does not adhere to guidelines will be not be tested.

## Rubric

### 🍎Behavior 50

- 10 points off each offense, up to 5 offenses

### 🍎Creativity 50

- Excellent=50
- Good=40
- Okay=30

### 🍎Effectiveness 50

- 4 successful trials=50
- 3 successful trials=40
- 2 successful trials=30
- 1 successful trial=20
- 0 successful trials=10

### 🍎Effort 50

- Project, egg, & complete lab sheet=50
- 2 out of the 3 listed above=40
- 1 out of the 3 listed above=30

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My team \_\_\_\_\_

Dimensions of box: \_\_\_\_\_ length \_\_\_\_\_ width \_\_\_\_\_ height

Description of box: \_\_\_\_\_

Material(s) used in box: \_\_\_\_\_

Why do you think this combination will protect the egg? Formulate a hypothesis: \_\_\_\_\_

Describe how you performed the first crash test & its results: \_\_\_\_\_

Based on your results, what changes did you make to your design? \_\_\_\_\_

Results of the 2<sup>nd</sup> crash test: \_\_\_\_\_

Based on your results, what changes did you make to your design? \_\_\_\_\_

Run as many trials as necessary until the egg is protected! Use your own paper & record the results.